

Special Purpose CNC Grinder (For Slabs of the Railway Table Board)



Machine efficiency

Under normal condition, the allowance of slab is 2mm, the machine can finish machining 10 - 100 pc slabs per 20 working hours.

Item	Unit	Specification
Machining Range	mm	6500 x 2550 x 1200
X Axis Travel	mm	8700
L/R Grinding head cross travel	mm	From the center line of the machine +1800 or -1800
Z1/Z2 Axis Travel	mm	1200
Distance between gantry	mm	6300
A1/A2 Rotating Range		-3o ~ 93o
C1/C2 Rotating Range		-3o ~ 183o
Grinding wheel size (OD x ID x W)	mm	525 x 305 x 200
Grinding wheel speed	rpm/min	500 - 3000
Grinding wheel motor power (Continuous/intermittent)	kW	103/124
Grinding wheel torque (Continuous/intermittent)	Nm	820/1110
X/Y2/Y1 Axis Moving speed	m/min	0 - 20
Z1/Z2 Axis moving speed	m/min	0 - 6
Coolant flow rate	L/min	750
Linear positioning accuracy		0.020/1000; full length 0.07mm
X / Z1 / Z2 Axis motor		8.17kW, 48Nm
Y1/Y2/A1//A2/C2/C1 Axis motor		3.3kW, 16Nm
Engrave spindle motor power	kW	5
Engrave spindle speed	rpm/min	max. 9000
Total Power	kW	350
Machine Weight	ton	70



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Conventional / CNC



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The machine of the normal type and CNC series is optimal designed which has the function of boring, drilling, cutting, milling, cutting groove. These machine can be associated with the rotary table and right angle milling head in order to realize five sides processing.

It is the perfect equipment for machining large workpiece of metallurgy, energy, electric power, mining, engineering machine, national defense industry, ship building and other industries. Spindle of the machine supports by high accuracy rolling bearings. X, Y, W axes adopt constant current hydrostatic guideways that the each pump equipped with one chamber. The machine equipped with double gear anti-backlash mechanism, ball screw drive, spindle electro-hydraulic compensating device, thermal balance protection system. It also has the function of completely self-diagnosis, so the operation for the machine is convenient.

The machine of these series can equip with all kinds angle milling head, special milling head, facing plate and other special ordered accessories.

Technical Specifications

Particulars	Unit	TKJ6916	TKJ6916	TK6916/TH6916	TK6920/TH6920
Diameter of boring spindle	mm	160	160	160	200
Diameter of milling arbor end	mm	260	260	260	300
Spindle taper		ISO50	ISO50	ISO50	ISO60
Rotary speed of spindle	r/min	2-1000	2-1000	2-1500	2-1000
Main motor	kw	37	55	71	75
Torque of spindle	N.m	4000	5000	6800	8000
Ram section size	mm	480x520	480x520	480x520	480x520
Horizontal travel of column (X) (can be extended per 2 meter)	mm	4000	4000	6000	6000
Vertical travel of spindle box (Y)	mm	3000/3500/4000	3000/3500/4000	3000/3500/4000	3000/3500/4000
Travel of boring spindle (Z)	mm	1200	1200	1200	1200
Travel of ram (W)	mm	1200	1200	1200	1200
Range of feed speed					
X	mm/min	2-4000	2-4000	1-6000	2-3000
Y	mm/min	2-4000	2-4000	1-6000	2-3000
Z	mm/min	2-2000	2-2000	0.5-4500	1-3000
W	mm/min	2-2000	2-2000	0.5-4500	0.5-4500
CNC System		Servo motor drive	Fagor 8055	SIEMENS 840D	SIEMENS 840D
Capacity of A.T.C. system	pc.	-	-	40/60/80	40/60/80
Machine weight	T	105	105	115	128

All specifications are subject to change without prior notice.

Single Column Vertical Boring Mill



Technical Specifications

Particulars	Unit	SC_VBM 100/220-125
Basic Machine Data		
Max. turning diameter from table center (Column in original position)	mm	12000
Max. turning diameter (column moves to outer most position)	mm	22000
Max. turning height with crossrail head on table (Workpiece entering the hallow hole of the table)	mm	12500
Max. workpiece weight	Ton	600
Table/face plate diameter	mm	10000
Number of top mounted jaw boxes	Unit	8
Table/face plate turning/milling speed (stepless)	rpm	0.001 - 20
Max. Torque on table	kNm	1000
Main power	kW	240
Column horizontal travel (X-axis)	mm	5000
Column rapid speed	mm/min	1000
Crossrail rapid speed	mm/min	1000
Crossrail vertical adjustment, up and down (W-axis)	mm	9500
Machine weight	Ton	1300
Machine dimension	m	30x22x21
Crossrail Head		
Crossrail head vertical ram stroke (Z-axis)	mm	4000
Crossrail head ram horizontal travel (X-axis)	mm	9200
Crossrail head ram cross section	mm	600 x 700
Crossrail head max. cutting force	KN	160
Crossrail head feedrate/rapid speed	mm/min	0 - 10000
Crossrail milling head power	kW	90
Rotational feed torque	Nm	9000
Side Head		
Side head vertical ram stroke (V-axis)	mm	3500
Side head ram vertical travel (X-axis)	mm	9000
Side head ram cross section	mm	600 x 700
Side head max. cutting force	kN	160
Side head feedrate/rapid speed	mm/min	0 - 10000
Side milling head power	kW	90
Rotational feed torque	Nm	9000
CNC Control		SIEMENS 840D

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Floor Type Horizontal Boring & Milling Machine



Technical Specifications

Particulars	Unit	HBM-200/90	HBM-320/137
Basic Machine			
Travels			
X - axis	mm	2500	24000
X - axis speed	mm/min	10000	10000
Y - axis	mm	4000	10000
Y - axis speed	mm/min	10000	10000
Z - axis spindle travel	mm	1200	1700
Z - axis speed	mm/min	10000	10000
W - axis ram travel	mm	2200	2500
Z+W - axes spindle+ram travel	mm	3400	4200
W - axis speed	mm/min	10000	10000
A - axis fork rotation	degree	± 95	± 95
C - axis universal milling head rotation	degree	± 200	± 200
B - axis table rotation	degree	± 180	± 180
V - axis table travel	mm	4000	4000
Rotary table			
Table traverse speed	mm/min	6000	6000
Table surface	mm	3500	6000 x 6000
Max. load on table	ton	75	300
Work table cross travel (V-axis)	mm	-	4000
Work table rotating feed	rpm	0.0005 - 1	0.0001 - 1
Work table rotation	degree	-	360
Work table rapid rotating speed	rpm	0 - 3	0 - 3
Number / width of T - slots	-	-	36mm H18
Distance of slots	mm	-	400
Ram/Spindle/Main Drive			
Ram cross section	mm	600 x 700	790 x 890
Spindle size	mm	200	320
Max. Power	kW	90	137
Spindle speed	rpm	0 - 2000	0 - 1250
Max. torque	Nm	9000	14400
CNC Control		SIEMENS 840D	SIEMENS 840D

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Floor Type Boring and Milling Machine



Technical Specifications

Particulars	Unit	TPX6213	Particulars	Unit	TK6913	TK6916	TK6920	
Boring spindle unit			Boring spindle unit					
Spindle diameter	mm	130	Spindle diameter	mm	130	160	200	
Max. spindle torque	N.m	3136	Spindle taper		ISO50	ISO50	ISO60	
Max. spindle thrust	N	31360	Spindle end face diameter	mm	300	320	330	
Max. milling spindle torque	N.m	3136	Ram section size	mm	440x480	470x520	480x550	
Max. facing slide torque	N.m	4900	Spindle speed	rpm	2-1000	2-800	2-650	
Spindle Taper		BT50	X/Y/Z/W axis movement					
Max. travel of spindle	mm	900	Column move (x axis)	Travel	mm	4000-20000	6000-20000	8000-20000
Max. travel of facing slide radial tool bracket	mm	250		Rapid moving speed	mm/min	5000	5000	5000
Min. distance from spindle center line to the bottom surface of bed	mm	1435		Feed speed	mm/min	1 - 4000	1 - 4000	1 - 4000
Shifts of spindle speed		24	Spindle box move (y axis)	Travel	mm	2000-4000	2000-4000	2000-6000
Range of spindle speed	rpm	4 - 800		Rapid moving speed	mm/min	5000	4000	4000
Shifts of facing slide speed		18		Feed speed	mm/min	1 - 4000	1 - 4000	1 - 4000
Range of facing slide speed	rpm	2.5 - 12.5	Spindle move (z axis)	Travel	mm	900	1200	1300
Shifts of spindle headstock and column base feeds per spindle revolution		18		Rapid moving speed	mm/min	3000	3000	3000
Range of spindle headstock and column base feeds per spindle revolution	mm/r	4-200rpm 0.05-8 mm/r 250-800rpm 0.01-2mm/r		Feed speed	mm/min	1 - 3000	1 - 3000	1 - 3000
Shifts of facing slide slipper block, headstock & column base feeds per facing slide revolution		18	Spindle move (w axis)	Travel	mm	900	1200	1300
Range of facing slide slipper block, headstock & column base feeds per facing slide revolution	mm/r	0.08 - 12.5		Rapid moving speed	mm/min	3000	3000	3000
Headstock travel (Y axis)	mm	1600,2000,2500	Feed speed	mm/min	1 - 3000	1 - 3000	1 - 3000	
Column base travel (X axis)	mm	> 6000	Total travel of tools		2	4	2	
Spindle, headstock & column base rapid feed	mm/min	2500	Machine					
Main motor power	kw	15	Spindle motor	kW	60	60	71	
Digital readout accuracy	mm	0.005	Machine weight	kg	75000	112000	148000	
Machine weight	kg	37000	CNC System		SIEMENS840D			

Remarks: The travel of X axis can be prolonged by 1000mm/section, the travel of Y axis can be prolonged by 500 mm/section according to the requirements of customer. But the commended max. length should not exceed the max. length in the above specification table.

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Vertical Fine Boring Machine

Model :
T7240



Technical Specifications

Max. diameter of boring hole	mm	400
Max. height of boring hole	mm	1100
Max. movement of spindle	mm	1350
Hand wheel per round of spindle	mm	10
Distance from spindle center line to vertical		
Column guide way surface	mm	480
Max. distance from spindle face to working table	mm	1390
Min. distance from spindle face to working table	mm	40
Working table surface size	mm	1600 x 630
T slots amount		5
Max. longitudinal movement of working table	mm	1200
Max. transverse movement of working table	mm	100
Frequency conversion range of spindle	Hz	5 - 95(stepless speed)
Feed amount per round of spindle	mm	0.05,0.08,0.125,0.20
Rapid movement of spindle	mm/min	3000
Slow movement of spindle	mm/min	60
Rapid longitudinal movement of working table	mm/min	1000
Main motor power	kW	7.5
Rapid motor of working table	W	750
Overall dimension (L x W x H)	mm	2500x2400x3728
Total weight	kg	15000

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